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(71) Applicant: NIPPON TELEGR & TELEPH

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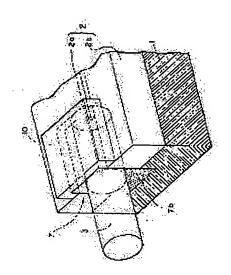
01. 07. 1988 (72) Inventor: YAMADA YASUBUMI

TERUI HIROSHI OMORI YASUJI KOBAYASHI MORIO

## (54) HYBRID OPTICAL INTEGRATED CIRCUIT

## (57) Abstract:

PURPOSE: To attain no-adjustment integration by executing an alignment in the face direction of optical parts and an optical waveguide by a guide on a substrate on which the optical waveguide is formed, and executing an alignment in the height direction by fixing a carrier to the guide. CONSTITUTION: At the time of integrating an optical waveguide 2 and optical pars, an alignment in the face direction only is executed by no-adjustment by a guide 7 on a substrate 1 on which the optical waveguide is formed. Subsequently, as for an alignment in the height direction, it is executed by noadjustment by combining its guide 7 and a carrier 10. That is, the guide 7 which is formed on the substrate 1 is formed aligning only the face direction of the substrate 1 with external dimensions of the optical



parts, depth of a groove 7b is formed so as to be deeper enough than height of the optical parts which are loaded, and on the other hand, the optical parts are loaded on the carrier 10. In such a way, the degree of freedom of dimensions of the optical parts becomes larger, and also, a hybrid optical integrated circuit which can execute the non-adjustment integration can be obtained.

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